

10/523,277

Application No.: 10/523,277

Docket No.: SAMSF 3.3-002

**IN THE SPECIFICATION**

Please amend the paragraph beginning at page 15, line 23 and ending on page 16, line 5, as follows:

The OFA epitopes of the present invention that specifically stimulate Tc cells and optionally, the OFA epitopes that specifically stimulate Th cells may be administered to cancer patients, preferably ~~in~~ together in the form of a composition. Thus, the present invention further provides a method of treating cancer in a mammal, by administering to a cancer patient at least one and preferably a plurality of oncofetal antigen (OFA) epitopes that specifically stimulate T cytotoxic lymphocytes in the mammal, and optionally, one and preferably a plurality of oncofetal antigen (OFA) epitopes that specifically stimulate T helper lymphocytes in the mammal. A related aspect of the invention is directed to a method of potentiating a T cell-mediated immune response in a mammalian cancer patient comprising administering to the cancer patient an immunogenic amount of a composition as described herein.

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Please amend the paragraph beginning at page <sup>48</sup>~~47~~, line <sup>15</sup>~~8~~, and ending on page 48, line <sup>15</sup>~~8~~, as follows:

In preferred embodiments, the vaccine composition of the present invention contains a plurality (i.e., two or more) lipopeptides, each of which contains a distinct Tc-inducing OFA epitope. In other preferred embodiments, the vaccine also contains one or more lipopeptides that contain a Th-inducing OFA epitope. The sequence of the epitopes will have to be confirmed based on the HLA MHC proteins the patient expresses. Administration, e.g., intradermal or subcutaneous injection of this mixture of mono-palmitoyl-conjugated OFA/iLRP peptides will lead to uptake by and maturation of dendritic cells which then can present those

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peptides to Tc and Th cells in lymph nodes draining the site(s) of immunization. Thus, dendritic cells will be targeted *in vivo* by the lipopeptides.

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18 and ending on page 70, line ~~20~~<sup>37</sup>, as follows:

Using the same methodology, two additional OFA epitopes that specifically stimulate Tc cells were identified, mainly OFA (58-66) (e.g., LLLAARAIV) and OFA (60-68) (e.g., LAARAIVAI).

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20 and ending on page ~~73~~<sup>74</sup>, line ~~20~~<sup>73</sup>, as follows:

Second, the counted PBML is diluted to  $5 \times 10^6$  viable cells/ml in RPMI-1640 medium and then the cell suspension is split into two aliquots. (a) One aliquot of cells serves as the source of antigen-presenting cells in the proliferation assay. Deplete this aliquot of T cells by negative selection on anti-CD3 monoclonal antibody coated Petri plates using the method described in Wysocki et al., *Proc. Natl. Acad. Sci. (USA)* 75:2844 (1978), except that anti-CD3 antibody is used and that the anti-CD3 antibody is added and binds to the plates on the day of the cell separation. See Boyum, *Scand. J. Clin. Lab. Invest.* 21:97:S77 (1968). After incubation and removal of cells not adhering to anti-CD3-coated plates, the non-adherent cells (non-T cells) are washed by centrifugation in RPMI-1640 medium by centrifugation and X-irradiated at 3000 R to inhibit their ability to proliferate. After X-irradiation, they are counted for viability using Trypan Blue dye exclusion and kept on ice until the proliferation assay is done. (b) The aliquot of cells not used for CD3<sup>+</sup> cell (T cell) depletion is split in half and